

ENGLISH TRANSLATION OF THE INTERNATIONAL APPLICATION
FOR NATIONAL PHASE SUBMISSION

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Patent claims

1. A surge protector (1) comprising a spark gap (2), which has mutually opposite electrodes (3), a trigger circuit (5) for triggering the spark gap (2) and a light source (14), which is connected to a protective device (13), at ground potential for generating a trigger light, which can be supplied to a reception unit of the trigger circuit by means of at least one optical waveguide (15), the spark gap (2) and the trigger circuit (5) being at a high-voltage potential, characterized in that the reception unit has at least one power semiconductor component (16), which can be moved over, by means of the trigger light, from an off position, in which a current flow via the power semiconductor component (16) is interrupted, to an on position, in which a current flow via the power semiconductor component (16) is made possible.
2. The surge protector (1) as claimed in claim 1, characterized in that the power semiconductor components are in the form of thyristors (16) which are connected in opposition and can be triggered optically.
3. The surge protector (1) as claimed in claim 1 or 2, characterized in that the trigger circuit (5) has a capacitive voltage divider (7, 8), which has a capacitor (8) which can be bridged by means of the power semiconductor components (16).

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4. The surge protector (1) as claimed in one of the preceding claims,
characterized in that
the trigger circuit (5) is connected to a trigger electrode (6), whose distance from a first electrode (3) of the spark gap (2) is less than the distance between the first electrode (3) and a second electrode (3) opposite it, it being possible for the electrical potential of the second electrode (3) to be applied to the trigger electrode (6) by means of the trigger circuit (5).
5. The surge protector (1) as claimed in one of claims 1 to 3,
characterized in that
the spark gap (2) has at least two pairs of mutually opposite electrodes (3), which are arranged in a series circuit with respect to one another, the capacitor (8) which can be bridged being connected in parallel with a pair of mutually opposite electrodes (3).
6. The surge protector (1) as claimed in one of the preceding claims,
characterized in that
the spark gap (2) and the trigger circuit (5) are arranged on a platform (4) which is supported in an insulated manner by means of supports and is designed to bear components which are provided for the purpose of improving the power transmission in an energy distribution system.